NATURAL HISTORY
AS
SHOWN ON
POSTAGE STAMPS

JAMES H. LYONS

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NATURAL HISTORY

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POSTAGE STAMPS

BY

JAMES H. LYONS

BOSTON
THE NEW ENGLAND STAMP COMPANY
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FOREWORD

The popular writer on Stamp Collecting always makes a strong point of its educational value, particularly to the young devotee who is supposed to imbibe history, geography, world politics, natural history, art and various other branches of knowledge with the least amount of effort as he collects his treasures and arranges them in his album. In a measure this is true, but this encyclopædic information, which is so attractively held up to the uninitiated as a natural result of taking up the pursuit, is not such an open book as many would have us believe. In the first place, it is perfectly possible to form a fine collection of postage stamps —and know nothing about them. This was more often the case in the past than at present, and was largely the result, apparently, of the printed album combined with the fact that the stamps themselves had not been studied and written about as they have been within the last twenty years or so. The collector of the earlier days, therefore, was usually more intent upon filling "that vacant space" on his printed album page, and less interested after the page was completely filled. How many times have some of us known a collector to refuse a new stamp "because there's no place in the album for it"? That tells its own story.

But the advent of the blank album, with its opportunities for personal work in arrangement and often embellishment, made the study of the stamps themselves more attractive to the collector, and the columns of the philatelic press began to give evidence that such was the case. This study, however, took two divergent courses: the one was confined to the technical points about the stamp and developed into the "specialized" collection, the highest type of which, perhaps, has been exhibited by the late Earl of Crawford's wonderful collection of United States, which was so thoroughly "written up" with all available historical and technical data in connection with the stamps on the pages with the exhibits. The other course disregarded to a large extent this scientific detail and concerned itself with the design of the stamp, studying the artistry and symbolism displayed, the biography of personages portrayed, the natural history of animals represented, the details of scenes presented to view, the description of buildings or monuments, the monetary systems expressed and even the alphabets or characters used for the inscriptions.

Here, then, is where the educational feature really makes good its claim. Of course the ordinary collector, if at all inquisitive, cannot help gathering with his stamps a fund of general knowledge which is world-

wide, and without realizing it will absorb more varied information than perhaps any other hobby would impart. But to the collector who really *studies* his stamps—and here I turn with a hand-grasp of good will from the "scientific philatelist," who belongs in the other category—a vast field is opened by what he finds on these little pieces of paper, and he can wander far and in many directions under their leadership. This may be regarded by some as more of a by-path of Philately than anything else; but stamp collecting in its simplicity is a hobby, a pastime or a recreation as you will, and as such should be entertaining first of all if it is to win and retain popular favor. The more serious scientific aspects should be reserved for later developments.

Mr. Lyons has already done his share on the popular side of the pursuit in the excellent little volume from his pen on *The Commemorative Stamps of the World*, which first appeared serially in the pages of the *New England Stamp Monthly*. His assiduity and success in gathering information concerning these attractive issues, every one of which has a story of human interest to tell, has won him many encomiums from collectors and from the press. He has shown that his interest was real, and he has backed it up by placing before the philatelic public the results of the researches he was able to make. He has now turned to another phase of the popular side of the hobby, and in the following pages will tell us about Natural History as shown on the stamp issues of the world.

Of course "Natural History" is a rather large subject, and much might be included that would swell the serial story to large proportions. To keep within bounds, therefore, it is proposed to take for subjects those specimens of birds and beasts, as well as trees or plants, which have been given special prominence on postage stamps with the idea of setting before the world the particular fauna or flora of the countries concerned. Many such are of special interest, as for instance the Black Swan of Western Australia, whose discovery some two centuries ago was regarded as a fairy tale; and the famed Travellers' Tree of Madagascar, which was also once looked upon as a vivid stretch of some explorer's imagination. Fabled beasts, heraldic monsters and the common domestic animals will receive scant notice unless they can present some special reason for undue prominence to be given them. Such a case would be that of the grand old Newfoundland dog, faithful friend of man and children, once so common and now rarely seen, and even practically extinct as far as the land of his origin is concerned. Newfoundland did well to picture him on a black stamp! But I must not anticipate; Mr. Lyons will have plenty to tell in his own way and I know his succeeding pages will be as full of interest for the collector as were those about the Commemorative Stamps.

CLIFTON A. HOWES, S. B.

NATURAL HISTORY AS SHOWN ON POSTAGE STAMPS

JAMES H. LYONS

This article, as the title implies, is a study of animals, birds, reptiles, trees, etc., as pictured on postage stamps.

AUSTRALIAN COMMONWEALTH

The Commonwealth of Australia, consisting of the six colonies of New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania, was proclaimed at Sydney, January 1, 1901.

On the first set of postage stamps issued for the Commonwealth is portrayed a Kangaroo, a genus of marsupial quadrupeds almost entirely confined to Australia and the neighboring islands. They form one of the most prominent and characteristic features of the fauna of these lands. Kangaroos vary considerably in size; the Great Kangaroo illustrated on the stamps attains a length of eight feet including the tail, the wallabies (brush kangaroos) of the same genus are much smaller. Kangaroos are distinguished primarily by the possession of a pouch in which they carry their young after birth, and to which the latter go for shelter after they are able to run and jump. The hind legs of the Kangaroo are greatly elongated, and by means of these and the powerful tail the animals are able to take long leaps and make swift progress. Kangaroos feed on grass and various kinds of herbage, and are hunted by the colonists as much on account of the damage they do in eating grass required for cattle and sheep as for sport. They are by nature timid and inoffensive, except when brought to bay, when they will defend themselves with their sharp claws and powerful hind legs. The fur is soft and woolly, the skin being of value for both shoe and glove leather. The flesh is said to be nutritious and savory, resembling mutton, the tail especially being considered a delicacy.

On the six pence postage stamp of the issue of 1914 is pictured a native of Australia, the Kookaburra or Laughing Jackass, a very large kingfisher, measuring 17 inches in length, with a wing of 8½ and a tail of 6½ inches. It is also called the Settler's Clock. It acquires these names from the peculiar gurgling cry uttered with great regularity at dawn and dusk. It is one of the wood-kingfishers, the food consisting of insects, reptiles and even small mammals. The coloring is not brilliant, consisting of brown, black and white, but the male has the lower part of the back of a greenish blue color.

CANADA

Was originally discovered by Cabot in 1497. In 1534 Jacques Cartier, a Frenchman, discovered the St. Lawrence River and travelled as far as the Indian village Hochelaga, bringing back with him the first cargo of Canadian furs. The first settlement (Quebec) was founded by Champlain

in 1608. In 1759 Quebec succumbed to the British forces under General Wolfe, and in 1763 the whole territory of Canada became a possession of Great Britain by the Treaty of Paris of that year.

On the 5 cent postage stamp of Canada, of the issue of 1859, is pictured a beaver. The Beaver is a social rodent, formerly widely distributed over Europe and North America but now greatly reduced in residence and number. It has strongly webbed hind feet which are used in swimming, a scaly, horizontally flattened tail used as a rudder, sharp claws, which aid it in scratching up mud, and a short, thick fur, which has considerable commercial value. The value of the fur was such that, when the first French explorers began to search the Canadian lakes and later when the Hudson Bay Company succeeded the French, the history of Canada was largely bound up with beaver-catching and the sale of the skins. In the early days of the Company the "standard of trade" of the Northwest was a beaver skin. The beaver was the crest of the Province of Canada and is still that of the Dominion. The great interest in the beavers lies in the ingenuity which they manifest in the construction of their houses or "lodges" and in the building of dams when the water in the vicinity of their dwellings tends to become so shallow as to impede their movements or leave them a prey to their enemies. The diet consists of the leaves and bark of trees, especially the willow and poplar. In felling a tree the incisor teeth are the instruments used and the beaver has been known to gnaw through a tree 1½ feet in diameter.

CHINA

Or more accurately the Chinese Republic, is an extensive dominion of Eastern Asia. Chinese civilization is the oldest in the world but no trace is found in ancient Chinese literature of any tradition on which a theory might be founded as to the original source of the race. The Chinese have their own traditions as to the history of the human race, and these show no signs of their migration. After the time of Pan-ku, the first man, they tell of ten periods of sovereigns, to the reigns of whom most of the great advances in civilization and culture are assigned. The first emperor of whom a detailed account is given is Fu-hi, whose lifetime tradition fixes as 2852-2738 B. C. At the close of the year 1911 the party of reform forced the Imperial dynasty to a "voluntary" abdication and a Republic was proclaimed.

On several of the Chinese postage stamps is pictured the Carp, a fresh water fish and native of the East, especially China, but abundant as an introduced form throughout Europe and North America. This fish, which is closely related to such well known species as gold fish and minnows, often grows to a very large size. An average length is 12 to 17 inches, but in captivity this is often exceeded, and the limit of growth is uncertain, specimens weighing 30 to 40 pounds being frequently found. Examples have been known to attain great age also, some living over 100 years. In color they are brown above, light beneath, have a compressed body covered with large scales, a long dorsal fin and shorter anal fin, and around the mouth depend four barbels. The Carp usually inhabits quiet lakes, ponds or sluggish streams and during winter hibernates in the mud; it is capable of living for a considerable time out of water. Its food consists of vegetable matter and worms, insects, etc.

On the postage stamps of the dollar values of the 1897-1907 issues of China is shown a wild goose on the wing. Goose is a name given to all the birds belonging to the genus *Anser*; there are about twelve species which are characterized by a slightly hooked beak, high at the base, and short webbed feet. The Geese include birds of somewhat conspicuous coloration, besides a considerable number of more subdued aspect. Geese were domesticated at an early age and are valued for their quills and feathers, as well as for their flesh. The largest living species is the Chinese, which is regarded as the stock from which the domesticated geese of Eastern countries have been derived.

An old Chinese legend states that the Emperor of China once sent an ambassador to the ruler of a country at the North. The ambassador was treacherously detained and reduced to the position of a herder of cattle. One day he captured a wild goose and, remembering the migrations of these birds north and south, he wrote a letter bearing the Emperor's name and fastened it to the wild goose and set it free. The legend goes on to state that the Emperor was out hunting one day and brought down this very goose, on which he found the letter. The Ambassador was soon rescued and the neighboring ruler was punished for his treachery.

COLOMBIAN REPUBLIC.

A north-western republic of South America. It is bounded on the north by the Caribbean Sea, on the east by Venezuela, on the south by Brazil and Peru, on the southwest by Ecuador and on the west by the Pacific Ocean. The climate of Colombia is determined by the double influences of latitude and altitude. Situated entirely in the tropical zone, its days and nights are of equal length and it has the two seasons—the wet and the dry. The country includes every altitude, from the sea level to upwards of 18,000 feet in the region of perpetual snow; it has therefore every temperature from that of the torrid zone to that of the frigid. The capital, Bogotá, founded by Quesada in 1538, stands on the eastern margin of a large elevated plateau of the Eastern Cordillera of the Andes.

On the 5 cent postage stamp of the issue of 1876 is shown a condor. The Condor is a large South American vulture, found particularly in the region of the Andes. It is one of the largest of flying birds and when on the wing the most majestic. The general color is black and in both sexes there is around the lower part of the neck a white ruff of feathers; above this the head and neck are bare. They are exceedingly tenacious of life and it is said can exist without food for forty days. If they do not have space to run they cannot rise from the ground; the birds flap their wings on rising, but after attaining a moderate elevation they seem to sail on the air.

CONGO

A state of equatorial Africa which was annexed to Belgium in 1908. Its coast line is only 25 miles, but its whole area is some 900,000 square miles. Congo is bounded on the north by French Congo, on the northeast by Egyptian Soudan, on the east by the Uganda Protectorate, on the south east by Rhodesia, on the south west by Angola and on the west by the Atlantic Ocean.

On the 15c postage stamps of the issues of 1896-1910 is shown the Cocoanut Palm. The tree grows to a height of from 60 to 100 feet and consists of a cylindrical stem from 1 to 2 feet thick, marked with rings where leaves have formerly grown, and terminating in a crown of from 16 to 20 graceful pinnate leaves, each about 15 feet long. The flowers grow in branching spikes, 5 to 6 feet long, enclosed in a spathe, and each of these produces from five to fifteen nuts. The nut is enclosed in a thick fibrous outer husk. The inner shell contains the kernel, which in turn encloses a milky liquid. The tree begins to bear at seven or eight years of age and continues to produce several crops a year for about seventy-five years. The nut in various stages is an article of food and the milk forms an agreeable drink; the sap produces toddy, palm-wine and arrack. The leaves serve as thatch and are plaited for mats and baskets and the fibre of the outer husk is made into ropes. The kernel also contains 70 per cent of a fixed oil.

On the 1 franc postage stamps of the issues of 1894-1910 is shown an African Elephant. There are two distinct species of Elephants, Asiatic and African. The Asiatic Elephant has a comparatively flat forehead and small ears, while the African Elephant differs chiefly from the Indian species in the enormous size of its ears. Its color is a somewhat darker gray and it is more rapid in its movements, having remarkable powers of getting over precipitous ground. The build of the Elephant is huge and bulky, the head being disproportionately large, the ears big and flapping, the neck very short and thick, the limbs long and stout and the feet short and broad. The average height does not exceed nine feet. The most remarkable characteristic of the Elephant is the long flexible proboscis into which the nose is produced. This trunk, as it is called, is the organ of sense and smell, and is delicately sensitive. It has the nostrils at the extremity and is furnished with a kind of finger-like appendage which enables the animal to pluck a single blade of grass or to pick a minute object from the ground. It is also used for the purpose of conveying food and water to the mouth. As the trunk is required for so many purposes, it must needs be capable of extension, contraction and of flexibility in every direction and possessed of enormous strength. In order to effect these conditions, the trunk is composed of thousands of muscles. The Elephant always lives in herds; they are fond of bathing and when heated they squirt water over their backs by means of the trunk. In Southern Africa the tusks of a full grown bull Elephant usually weigh from 80 to 120 lbs the pair and measure about six feet in length, but these weights and measures are often exceeded. Elephants have no canine teeth in either jaw and their tusks are developed only in the upper jaw, young Elephants having a minute pair of milk-tusks which are shed at an early age. The permanent tusks continue growing throughout life and so remain open at their bases, which are enclosed in sheaths of premaxillary bones extending upwards in the skull as far as the nasal cavity. The tusks of young Elephants are tipped with enamel, but this soon wears off and they then consist of ivory alone. Elephants are strictly herbivorous, subsisting chiefly upon roots, twigs, leaves and young shoots.

COOK ISLANDS.

Cook Islands or Hervey Islands, are a cluster of small islands in the South Pacific Ocean, lying between the Society and Navigator groups and about 1700 miles north-east of Auckland, New Zealand. The islands were visited by Captain Cook in 1777, a British Protectorate was established in 1888, and the islands were annexed by New Zealand in 1901.

On several of the 1898-1911 issues of the Cook Islands postage stamps is shown a bird flying high above the sea, while in the distance appears the island of Rarotonga. The bird as pictured on the stamps has caused much discussion as to its identity. It was intended to have on the stamps a representation of a bird known locally as the "torea." Scientists seem agreed that this native word belongs to a snipe-like bird (*Totanus*). The birds are of a light brown color with red bill and legs, and frequent the sandy flats on the seashore. In 1897 the British Resident, F. J. Moss, wrote to the Colonial Secretary at Wellington, New Zealand: "Might I ask you if you will kindly help the Cook Islands Government to add three new stamps to the present issue. They are designed to use for postal and revenue purposes and the idea is to have them with the bird 'Torea' on the face, the denominations to be 2d. 6d and 1s respectively. I enclose the 'Torea' from the newspaper heading of that name, but the beak should be longer and slender and the legs the same."

In reply were received designs and drawings of the black-headed tern and the following: "The designer has done his best in reproducing the bird from the wood-cut forwarded. As however, he could not identify the 'Torea' in the museum here, he can not guarantee accuracy, but if you will advise me of its scientific name I will arrange for a drawing to be made at the museum." In reply to this Mr. Moss answers: "I am sorry not to be able to give you the scientific name of the 'Torea.' It is a snipe, not a tern, and the beak and legs are long and fine."

The following is from two bird experts: "The authority on the birds, at the museum, agrees with me that the bird on the Cook Island stamp is certainly not a plover or snipe or any bird of that order. We feel very sure that it is a tern. The argument against the plover or snipe theory is the tail, which is deeply forked and reaches as far back as the wings in flight; no bird of the plover-snipe order, in the Pacific at least, has a tail like that. This argument seems to be conclusive but there are two other good ones; (1) no plover or snipe carries its wings in flight as the bird on the stamp does; (2) plover and snipe are ordinarily observed on the ground and run about more than they fly, so no one familiar with a bird of this kind would picture it in flight. The confusion and doubt are due to the needlessly long beak and legs."

It seems probable that the designer took his drawing of the tern and lengthened the bill and legs.

CUBA.

The island of Cuba was visited by Columbus during his first voyage, on October 27, 1492. Early in the 16th century the island was conquered by Spain and for almost four centuries Cuba remained under a Spanish Captain-General. Various attempts at independence met with severe military repression. In 1898 the United States Government demanded the evacuation of Cuba by the Spanish forces and a short Spanish American War led to the abandonment of the island, which was occupied by the United States troops. From 1899 to 1902 Cuba was under United States military rule and many reforms were instituted. On May 20,

1902, an autonomous government was inaugurated with an elected President and a legislature. The Island was, however, again the prey of revolution from July to September of 1906, when the United States Government resumed control. On January 28, 1909, a republican government was again inaugurated.

On the 2 cent postage stamps of the issues of 1902-07 is shown a group of Royal Palms. The Royal Palm, a tree peculiar to the island, grows to a height of over 200 feet and is unrivalled in beauty and majesty. One of the peculiarities of the Royal Palm is the stem of its long leaves, which is semicircular and embraces the trunk of the tree, holding the leaf in place until it withers and drops to the ground. This stem is called the *yagua*. It resembles a thin board, often from four to six feet long, and by soaking in water it is rendered pliable, so that it may be folded as readily as a piece of stiff paper. It is used by the natives for various purposes, such as a water basket or a receptacle for eggs or other products. The leaves drop to the ground from the bottom of the cluster when they can not grow any more, thus making room for the new ones which are always coming out of the center. The bud or root of the center spire from which the leaves grow consists of a tender substance buried deep down within the cluster of green leaves. It forms a very palatable food either in the raw state or cooked as a vegetable. The natives use the palm tree for building their houses, the leaves for covering the roof and sides and the outer part of the trunk is split into strips for the frame. In the shape of the leaves of palms there is considerable uniformity. Out of over 1,000 species the majority of them have the same feathery leaves as the date palm, which is the universally received type of the palm branch. The branch or palm leaf resembling a feather is divided into numerous narrow leaflets, which form of leaf is described as pinnate.

DAHOMEY

A country of West Africa conquered by the French in 1892. It was formerly a negro kingdom, for 200 years a center of idolatry and heathen practices. The native army was famous for its detachment of 800 Amazons. The French Colony extends further north than the former native kingdom and is bounded on the west by Togoland, on the east by Lagos and on the south by the Gulf of Guinea. The seat of government has been transferred from the ancient capital (Abomey) to Porto Novo. One of the chief products of West Africa is palm oil.

On the postage stamps of the values 20c to 75c of the 1906 issues of French West Africa (Dahomey French Guinea, Ivory Coast, Mauritania, Senegal, Upper Senegal and Niger) is pictured an Oil Palm. The tree is a rather wild and shaggy one, the flowers have a strong peculiar smell like that of anise, the fruit forms an immense head, consisting of a great number of bright orange colored drupes having a thin skin, an oily pulp and a hard stone; the pulp of the drupes forming about three-fourths of their whole bulk, yields, by bruising and boiling, an oil which when fresh, has a pleasant odor of violets and when cold acquires the consistency of butter. This oil is used for many purposes, as for making candles, toilet soap and for lubricating machinery.

EGYPTIAN SUDAN

The Sudan extends from the southern boundary of Egypt to the northern shore of Lake Albert Nyanza and reaches from the French Sahara to the northwest boundary of Eritrea. The greatest length from north to south is approximately 1,400 miles and from east to west 1,200 miles. Its boundaries correspond in general with those obtained by conquest from the indigenous tribes by the armies of Mohammed Ali, the first Khedive of Egypt, and his successors up to Ismail Pasha, between 1820 and 1875. In 1884 the Mahdist rebellion, culminating in the fall of Khartoum and the death of General Gordon on Jan. 26, 1885, compelled the Egyptian Government to withdraw from the whole of the Sudan, with the exception of Wadi Halfa on the Nile and Suakin on the Red Sea, which were held as frontier posts. From 1885 until the final overthrow of Mahdism in the campaign of 1896-98 the country was entirely under the rule of the Dervishes. Mohammed Ahmed, the original Mahdi, died on June 22, 1885 and was succeeded by the Khalifa Abdullahi, who ruled until his defeat by the Anglo-Egyptian army at the battle of Omdurman on September 2, 1898. He escaped from the battle and remained at large until he and most of his remaining Emirs were killed at the battle of Gedid on November 24, 1898. After its re-conquest a treaty signed on January 19, 1899, between Egypt and Great Britain, defined the boundary between Egypt and the Sudan and provided for the joint administration by the two signatories. The northern part of the Anglo-Egyptian Sudan contains many interesting antiquities, notably the rock-hewn temple at Abu Simbel and the pyramids and temples near Wadi Halfa. The Sudan is divided into thirteen provinces, each administered by a governor with subordinates and the whole controlled by a governor-general.

On the 1898-1901 issues of the postage stamps of the Sudan is shown a Dromedary traveling across the desert with an Arab on its back holding a rifle; two spears appear behind the rider and mail bags are on the saddle. On the mail bags are the names "Khartoum" and "Berber." The Dromedary is a breed of swift riding camel and is so called to distinguish it from the Pack-camel. There are two species of camels, the Arabian which has one hump and the Bactrian which has two humps. The hump on the camel's back is a wonderful provision of nature, being huge masses of fat serving as a reserve store of food. As the camel is intended to traverse the desert and to pass several days without liquid nourishment, there is an internal structure which permits the camel to store up a considerable amount of water for future use. In the structure of the feet only two toes are present; these are of equal sizes and instead of being protected by hoofs are provided with a hardened skin covering a cushion-like pad, which expands when the weight of the body is thrown upon the foot as in walking. As the camel is constantly forced to kneel in order to be loaded or relieved of its burden, it is furnished upon the chest and joints of the legs with thick callous pads which support its weight without injuring the skin. The eyes of the camel are furnished with long eyelashes to protect them from the glare and the drifting sands; the slit nostrils, which can be closed at will, protect it during the violent sand storms which often arise in the desert. The flesh and the milk of the camel are much valued by the Arabs as articles of food, and the hair is used for the manufacture of clothing. The power

of carrying water in its stomach and living on limited quantities of food earned for the camel the title "ship of the desert." They live from 40 to 50 years.

Camels were some of the earliest animals used for domestic purposes, for according to Scripture (Job XLII:12) 600 camels formed part of the great possessions of Job.

FRENCH CONGO

A colony of France on the west coast of Africa. Decrees have been issued changing the name of the French Congo and its Dependencies to French Equatorial Africa which now comprises the colonies of Gabun, the Middle Congo, the Ubanghi Shari and the Chad Military Territory. The Gabun extends along the west coast from the Spanish settlements on the Muni River to the Portuguese colony of Kabinda, near the mouth of the Congo River. Middle Congo lies between the Gabun and German Kamerun on the west and the Congo River on the East. The territory is divided by a strip ceded to Germany in 1911. The Ubanghi Shari lies between Kamerun and Nigeria on the west and the Anglo Egyptian Sudan. The Chad Territory extends northwards into the Sahara and includes the former kingdoms of Kanem and Wadai which reach from Lake Chad to the Anglo Egyptian Sudan.

On the 1c to 15c postage stamps of the 1900 issue of French Congo and also on the 1c to 20c postage stamps of the 1907 issue of Middle Congo is shown a Leopard. This animal is one of the cat tribe and is a fierce bloodthirsty carnivore found throughout the African continent and South Asia. Its color is pale fawn or buff, marked all over from head to foot and to the tip of the tail with black spots, each with a pale center. Usually the animal is from four to five feet in length, with a tail of about three feet. The Leopard is smaller than the lion or tiger, to which it is closely allied, while it differs from them in climbing trees; it is characterized by a peculiar gracefulness, slenderness and flexibility of form. Leopards are essentially tree-living and nocturnal animals.

FRENCH GUIANA.

A French Colony on the north-east coast of South America, including several islands in the immediate vicinity, the principle one being Cayenne on which is situated the capital of the same name. The total area of French Guiana is 33,880 square miles, population 40,000. Cayenne has been colonized by the French since 1604 and by a decree of 1854 was made the principal seat of the penal settlement of France. The outer island of a small group is known as Devil's Island, noteworthy as the prison of Alfred Dreyfus, confined here in 1894-99.

On the 1c to 15c postage stamps of the 1905 issue of French Guiana is shown an Ant Eater. This animal is a native of South America and has an elongated and narrow head, the body being about four feet long, with a bushy tail of about two and a half feet. The Ant Eater is thickly covered with long coarse hair which is mainly gray mingled with black, while there is a conspicuous black stripe edged with white across the shoulders. It is toothless, its head being prolonged into a large snout containing a protrusible tongue always well moistened with saliva, with which it picks up the ants and termites on which it feeds.

GILBERT AND ELLICE ISLANDS.

The Gilbert Islands form an archipelago in the Pacific Ocean consisting of sixteen atolls, the equator bisecting the group. They were discovered in 1765 by Commodore Byron, after whom one island is named, and despite their limited land area (166 square miles) and the fact that they produce only cocoanut and pandanus trees, they are populated by about 33,000 Polynesians and 150 Europeans. The group was annexed by Great Britain in 1892. The Ellice islands are a group of nine coral islands in the Pacific Ocean to the north of the Fiji Islands and are administered by Great Britain in conjunction with the Gilbert Islands. Area of the group 14 square miles. They produce copra, guano, and some pearl-shell and are partially covered with cocoa-nut palms and pandanus trees.

On the Gilbert and Ellice Islands postage stamps of the issue of 1912 is shown a Pandanus tree, a spreading and branching tree about twenty-five feet high, remarkable for its adventitious roots with large cup like spongioles which the branches send down to the ground and which serve as props. These are called stilt roots and are composed of two cylinders of mechanical tissue to resist strain as well as bending. The leaves are sword-shaped with spiny edges and are spirally arranged in three rows. The fruit is a fibrous drupe which unites in closely cohering clusters. When ripe these look like pineapples. The seeds are edible as well as the fleshy part of the drupes.

GUATEMALA.

The Republic of Guatemala is the most northern of the Central American Republics. It is bounded by the Pacific Ocean, British Honduras, the Gulf of Honduras and the Republics of Mexico, Honduras and Salvador. Area 48,290 square miles, population two millions.

With the exception of a small strip along the coast, Guatemala lies at an altitude of from 4,000 to 11,500 feet, its capital, Guatemala City, being 4,850 feet above the level of the sea. The chain of mountains which traverses its territory and sends out a number of spurs forms several plateaus which are extremely healthful and fertile and on which products of the Tropical and Temperate Zones are successfully grown. Coffee, sugar, cacao, tobacco and bananas are also grown for export.

Pedro de Alvarado, a lieutenant of Cortez, was the first to attempt seriously the conquest of Guatemala, then inhabited by the Quichés, Caribs and other Indian tribes. In the year 1524 Alvarado, in order to establish his authority firmly, had the two kings of the Quichés executed. Guatemala at that time comprised all the territory now known as Central America.

On the Guatemala postage stamps of the 1882 issue is pictured the Quetzal. This bird is the national emblem and is decidedly a bird of freedom, as it never survives captivity, even when taken in earliest life. In ancient times none but the royal family were allowed to wear the beautiful plumes. The male has a yellow bill and a head bearing a rounded crest of filamentous feathers; lanceolate scupulars overhang the wings and from the rump springs the long flowing plumes, the longer of which is from three to three and a half feet in length; the upper surface of the throat and the tail feathers are of a superb peacock green changing to indigo, while the breast forms a vivid scarlet. The female is very plain and thus escapes

the hunters and preserves the species. The skins of the males are brought down from the mountains in large quantities by the Indians.

INDIA—SIRMOOR.

The State of Sirmoor is situated in the lower "Simla Hills" between the Umballa and Simla Districts. Its area is about 1,108 square miles, population about 135,000. The State has long been considered the model one amongst the Native States of the Punjab. The capital is Nahan.

On the postage stamps of the 1894 issue of Sirmoor is shown an Indian Elephant. The Asiatic Elephant is distinguished from the African by its concave forehead and small ears. In order to support the enormous weight which rests upon them, the legs are very stout, and are without that bend in the hind leg which is found in most animals. There is no elongated cannon bone, so that the hind legs are lacking the knee-joint. It will be noticed that the engraver of the stamp is wrong in this respect. The Elephant is mainly a forest dweller, living on a diet of roots, twigs, leaves, grass and other herbage. Elephants are used in the East for carrying persons on their backs, a number being seated together in a *howdah*, while the driver (*mahout*) sits on the elephant's neck, guiding it by his voice and a small goad. Elephants have always had a conspicuous place in the great processions and state displays of eastern princes; they are also employed in many kinds of labor and display great sagacity.

JAPAN

The long chain of islands that constitute the Empire of Japan lies off the east coast of Asia, divided from the continent by the Japanese Sea and with the Pacific Ocean on their eastern shores. Of the six large islands which form Japan proper, not counting about 600 small ones, Hondo, the largest, is known as the mainland. Formosa was ceded to Japan by China in 1895 and Korea was annexed by Japan in 1910. Total area is about 175,540 square miles.

On January 1st, 1875, Japan issued three postage stamps of the values of 12, 15, and 24 sen. The 12 sen stamp has a picture of a Goose, the name given to all the birds belonging to the genus *Anser*, of the Anatidæ, or duck family; there are about twelve species, which occur in the nearctic and palæarctic regions. They are characterized by a slightly hooked beak, high at the base, short webbed feet and legs placed farther forward than in the case of other Anatidae. Geese live on grass and other herbage and are more at home on land than on water, as they swim very little and never dive. Although large birds and of bulky form, they have great powers of flight.

On the 15 sen stamp is represented a bird called a Wagtail, (*motacilla japonica*) a genus of insectivorous passerine birds. The Wagtails are generally found near the water or in meadows and seek their food upon the ground, feeding on insects, worms, etc. Both bill and feet are slender and the tail is very long; they run swiftly and the constant movement of the tail gives rise to the popular name; their flying is undulatory.

On the 24 sen stamp is shown the Osprey (*Pandion* bird of prey which feeds on fish and is the only member of the genus. Its length is about two feet and its wing expanse nearly six feet. It captures the fish with great dexterity, seizing them either with its feet from the surface of the water, or by plunging entirely beneath the surface, when it disappears amid a shower of spray, to *haliaetus*) or fish hawk. The Osprey is a cosmopolitan emerge a moment later with a fish in its talons. The long and closely feathered tibia, the reversible outer toe, long and peculiar claws and roughened soles are perfectly adapted for fishing. In the days of falconry, the Osprey was sometimes trained and used for catching fish.

LIBERIA.

A negro republic on the coast of West Africa, lying between the British colony of Sierra Leone on the northwest and the French colony of the Ivory Coast on the southeast. The colony had its origin in the efforts of several colonization societies of Europe and America to make a permanent provision for freed American slaves. The American colony was formed in 1822 and in 1847 it was constituted as the Republic of Liberia. The coast line is about 350 miles; the hinterland is composed of vast forests, the Nidi forest possessing rubber trees. Many rare species of animals are found and the vegetation is rich and beautiful. There is a large native population (two millions) which include the Kru and Gora tribes. The area is 41,000 square miles and the American-Liberian population is 15,000 besides about forty thousand civilized and Christianized negroes.

On the 2 cent postage stamps of the issues of 1896-1905 is pictured a Hippopotamus, an animal found only in Africa. It is one of the largest existing animals, the bulk of its body being little inferior to that of the elephant, although its legs are so short that its body almost touches the ground and its height is not much above five feet. It is extremely aquatic in its habits, living mostly in lakes or rivers. The hide is tough, being two inches thick on the back and flanks, but no hair covers its dark brown skin; its small eyes are set high in the huge, ungainly head with its great snout and enormous muzzle; the tail is quite short and on each foot are four even and hoofed toes; the ears are small and rounded and with the nostrils are capable of being closed at will. The huge mouth is furnished with large canine and incisor teeth, which are kept sharp by grinding one against another and enable their possessor to cut down great quantities of coarse grass and reeds upon which these animals feed. The lower canine teeth or tusks of the hippopotamus grow to a great size and in the males may weigh from 4 to 7 pounds each. They are curved in shape, and when extracted from the jaw form a complete half-circle and have been known to measure 30 inches over the curve. The animal is nocturnal and voracious; it is a good swimmer and diver, and as its respiration is slow, it can stay a long while under water. The extreme whiteness of the ivory obtained from the Hippopotamus' teeth and its property of retaining its color under very trying circumstances make it quite valuable, the market price being about five dollars a pound.

On the 1c postage stamp of the 1906 issue of Liberia is shown an African Elephant. This animal differs chiefly from the Indian species in the enormous size of its ears which, when in repose, completely cover the animal's shoulders. The molar teeth also indicate the species, the enamel upon the surface of the teeth of the Asiatic elephant being moulded into a number of narrow bands like folded ribbons while that of the African species is formed into six diamond or lozenge shaped folds. The ordinary height at the shoulder is about eight feet, but sometimes exceeds ten feet; the weight of a large elephant is about five tons, the body being very bulky in proportion to its height. To sustain this weight, it is furnished with limbs of great thickness and strength, which are also remarkably straight, each bone resting vertically on that beneath it. From the appearance of inflexibility presented by the limbs arose the notion prevalent among the ancients and throughout the middle ages that the limbs are destitute of joints, and that consequently an elephant can not lie down but always sleeps standing or leaning against a tree. The flexibility of the limbs is, however, sufficient to permit elephants to run, to indulge in playful gambols, to ascend and descend steep mountains. The elephant's pace when exceeding a walk is neither a trot nor a gallop, which would be too violent a motion for its conformation and huge body, but a sort of shuffle, the speed of which is increased or diminished without other alteration. The elephant is incapable of springing like the deer, horse and other animals which have the bones of their shoulders and hocks set at an angle. The head is large, the neck is short and thick, the long flexible proboscis or trunk enabling the animal to reach objects on the ground or to a height of several feet above its head or on either side. The nasal bones of the elephant are scarcely more than rudimentary; but the tapering proboscis, to the extremity of which the nostrils are prolonged, is nearly eight feet in length. The trunk is a formidable weapon of defence; yet it is capable of plucking the smallest leaf, or of lifting a minute object from the ground. To enable it to do the latter it is furnished at the extremity with what may be likened to a thumb and finger; on the upper side, an elongated process —strong, soft and flexible, like the rest of the trunk and endowed with a delicate sense of touch—on the under side, a kind of tubercle against which this process may be pressed. All the food is gathered and conveyed to the mouth by the trunk; by means of it also, the elephant drinks, sucking up into it a quantity of water sufficient to fill it.

On the 5c postage stamp of the 1906 issue of Liberia is pictured a Liberian chimpanzee. The chimpanzee is found in Equatorial Africa and its range is very extensive, reaching from the Atlantic coast to the forest regions of the Nile. The average height is about four feet for a full grown male. Owing to less articulation of the hind extremities the animal is able to place more of the foot upon the ground than the gorilla, and the limbs are longer. The fingers are free as far as the knuckles; when the animal aids its steps by placing the hands upon the ground, they have the curious habit of resting upon the knuckles instead of the palms of the hands. The chimpanzee is covered with coarse black hair which is thick on the back and shoulders, and there are whiskers on the sides of the cheeks; it has stiff and bristly eyebrows and the hair on the forehead is parted in the middle. On the upper

arm the hair takes a downward direction, which is the reverse of that on the lower arm, so that the tips of the hair meet at the elbow. When its rains the chimpanzee, in common with other apes, places its hands on its head and the hairy arms form a kind of roof to shelter the face, the water dripping off at the elbows. The ears are large and project almost at right angles from the face, the lips are extremely mobile and by them are expressed the various emotions of fear, astonishment, hatred, rage or pleasure, that agitate the ape's brain. Its natural food consists of fruit and other vegetable substances.

On the 10c postage stamp of the 1906 issue of Liberia is shown the Great Blue Plantain Eater (Corytheola Cristata), the largest member of that remarkable group of purely African birds. In size the male bird is equal to a large pheasant; its colors are purple black, ultramarine, yellow green and red. They have beautiful crests which can be elevated or depressed at will. This bird is very common in Liberian forests, feeding upon the plantain and various wild fruits.

On the 15c postage stamp of the same issue is pictured the Red and Blue Lizard (Agama Colonorum). This lizard is a particularly characteristic form of the West Coast of Africa, for although its range is far more extreme it is only in West Africa that it seems to assume these particularly vivid tints of red and blue, the blue being sometimes a brilliant cobalt. This lizard is found wherever there is primeval forest in Liberia.

The 20c postage stamp of the 1906 issue of Liberia has a picture of the Great Egret or White Heron (Ardea alba) which is common along the West African coast from Liberia to the Cameroons. There are other species and genera of white herons in Tropical Africa smaller in size and seen in flocks, but the Great Egret seems to be more solitary in habits and is generally seen alone or in pairs. It is an extremely beautiful bird with perfectly white plumage, much of it loose and flowing; the body is small in proportion to the length of the neck and legs, the neck is long and except in flight is usually held curved. Egret plumes made of the long feathers were in former times highly valued, being in some countries deemed an ornament only for royalty or for the highest nobles. Herons feed mostly on fish, frogs and other aquatic animals and may be seen particularly early in the morning and late in the evening standing motionless in shallow water, at the margin of a lake or stream, or on the seashore, waiting till prey comes within reach.

On the 75c postage stamp of the 1906 issue of Liberia is shown The Pigmy or Liberian Hippopotamus. It is much smaller than the regular animal and does not congregate in herds, nor pass its days in rivers or lakes, but lives in pairs in marshes or shady forests. It sleeps during the day and at night wanders over a great extent of country, eating grass, wild fruits and the young shoots of trees. Its flesh is said to be very succulent.

On the 20c postage stamp of the 1909 issue of Liberia is pictured the leaves, seed-pod and flowers of the Malagueta Pepper plant. The leaves are long and light glossy green, the flowers are white, tinged with pink and lemon yellow. They are succeeded by an oblong fruit which is scarlet when ripe; inside this brightly colored rind is a sweet white pulp in which is embedded the very aromatic seeds which are called "Grains of Paradise." The seeds, which are larger than hemp seeds, are dark brown outwardly with a white kernel that is intensely aromatic and hot to the taste.

MADAGASCAR

Is an island lying off the south-east coast of Africa, about 250 miles from the mainland, from which it is separated by the Mozambique Channel. It is the third largest island in the world, being 980 miles long and 360 miles in extreme width, with an area of 228 thousand square miles; population over three million. The island was known to Ptolemy under the name of Menuthias and was referred to in the 13th Century by Marco Polo, but the first known European to land on its shores was Diaz, the Portuguese, who visited the island in 1500. The assertion of the claim of France over Madagascar dates from the year 1642, when a concession of the island was granted to a trading company by the French. This grant and similar concessions subsequently made, as well as decrees proclaiming French sovereignty and the appointment of viceroys over the island, were entirely ineffective. In the year 1810 Radama I succeeded in reducing a large part of the island to the rule of the sovereigns of the Nova, the most advanced of the various Malagasy races, and in 1820 he was recognized by the English as King of Madagascar. The last native Queen, Ranavalona III, succeeded in 1883. In 1895 a French expedition was sent to enforce the claims of France and on October 1, the capital having been occupied, a treaty was signed whereby the Queen recognized and accepted the protectorate and by a law promulgated August 6, 1896, the island and its dependencies were declared a French Colony. In 1897 the Queen was deposed by the Resident-General and she and her family were deported.

One design is used for the entire set of the 1903 issue of postage stamps of Madagascar and represents a Tree, beneath which are a Zebu and a Lemur.

A peculiar feature of Madagascar is the Traveller's Tree, (Ravenala madagascariensis), a tree with long and large pan-shaped leaves, the petioles or leaf stalks of which form a large cavity at their base. In this hollow water collects and is drunk by animals and travellers.

The Zebu is common in Madagascar. Its distinguishing characteristics are a large hump upon its withers, drooping ears and a very large dewlap which falls in thick folds from the throat. The animal's coat is generally fine, the color being white, cream or gray; it is gentle in disposition and is used for riding and makes a good draught animal. The Zebu race has a large range of locality, being found in India, China, Madagascar and East Africa. There are various breeds of them and they vary greatly in size. In India one of the most familiar of these varieties is the Brahmin Ox, so called because it is considered to be sacred to Brahma. These animals bearing the sacred mark of Siva are allowed to

wander about in the streets and market places and no one dares to drive them away. They help themselves to the chociest vegetables and fruits and the owners cannot check their depredations.

Lemurs are natives of Madagascar and the adjacent islands and seem to take the place of the ordinary monkeys. Madagascar, though close to Africa, well wooded and with a favorable temperature, strangely enough does not possess a single species of genuine monkey. The Lemurs have neither the prying and mischievous dispositions, nor the intelligence of monkeys. The word Lemur signifies a night-wandering ghost and is applied to this group of animals on account of their nocturnal habits and stealthy, noiseless step; their fingers are tipped with soft pads, thus enabling the animals to move in absolute silence. Like the monkeys, they are quadrumanous, having on each of the four extremities a well-developed thumb opposed to the fingers. Their general form is slender and elongated, the muzzle pointed, the eyes are large and furnished with a transverse pupil which dilates at night, enabling the animal to see in the dark; the ears are small, the hind limbs longer and larger than the fore limbs. In size they are generally equal to a large cat and the name Madagascar cats is often applied to the whole race, of which there are about ten species.

NEW CALEDONIA

Is an island of the South Pacific Ocean, belonging to France and lying about 720 miles east-north-east of the coast of Queensland in Australia. The island is about 200 miles in length and has an extreme breadth of 35 miles. It is of volcanic origin and is surrounded by sand banks and coral reefs. The island is traversed in the direction of its length, from northwest to southeast, by a range of mountains which in some cases reach the height of 8,000 feet. In the valleys the soil is fruitful, producing the cocoanut, banana, mango, etc. The coasts support considerable tracts of forests, but the mountains are barren. The inhabitants, who resemble the Papuan race, consist of different tribes. New Caledonia was discovered by Captain Cook in 1774. In 1854 the French took official possession of it and made it a convict station.

On the 1c to 15c postage stamps of the 1905 issue of New Caledonia is pictured a remarkable bird, known by the natives as the Kagu (*Rhinochetus jubatus*). It is a moderately long-legged bird, with a body the size of a common fowl, a long bill and a full crest, five or six inches in length, pendant from the back of the head. The plumage is of a light ashy gray color, barred on the outer wing-coverts and tail with brown. The drooping plumes are ashy gray, while the bill, legs and feet are reddish orange. The Kagu runs quickly and has the habit of stopping suddenly and standing motionless, but when excited it stands straight, with erected crest, semi-expanded wings and drooping tail, and when in a playful mood it throws small sticks and stones about with the bill. The birds feed on worms, insects and small mollusks.

NEWFOUNDLAND

Is an island and British colony of North America. It lies in the Atlantic Ocean, at the mouth of the Gulf of St. Lawrence, and is separated from Labrador on the north by the Straits of Belle Isle, about 12 miles broad. The island is 370 miles in length and 290 miles in breadth and has an area of 42,734 square miles. Its surface is diversified by mountains, marshes, barrens, ponds and lakes. The number of the lakes is

remarkable; in fact it has been said that about one-third of the whole surface of the island is covered with fresh water. The early history of Newfoundland is involved in obscurity; the island was discovered by John Cabot in 1497, was visited by the Portuguese navigator Gaspar de Corte-real in 1500, and soon became the center of an extensive fishing industry with settlements of Portuguese, Biscayans and French. Sir Humphrey Gilbert arrived in Newfoundland in 1583 and formally took possession of the island in the name of Queen Elizabeth. The history of the island during the 17th and part of the 18th centuries is little more than a record of rivalries and feuds between the English and French fishermen, but by the Treaty of Utrecht in 1713, the island was ceded to England.

On the 2c postage stamps of the various issues of 1866 to 1896 of Newfoundland is shown a Cod, or *Gadus morrhua*. The distinguishing features of the Cod fish are the large mouth of which the upper jaw is the greater, the distinct tail, elongated dorsal and anal fins, the wide gill-opening, the four gills with a slit behind the fourth, and the presence of an air bladder. The body is generally of a dark gray hue, is elongated in form and covered with small, soft scales, while a small barbel depends from the chin. It inhabits the deeper parts of the sea, its food consisting of crabs, herring, etc. It is the largest of the Gadidae, attaining a length of 4 to 5 feet and weighing as much as 100 lbs. The Cod fishery constitutes the great staple industry of Newfoundland. The Cod are taken along the shores of the island, on the coast of Labrador and on "the Banks." The largest Cod fisheries in the world at the present day are those of the Grand Banks of Newfoundland, the greatest submarine plateaux known, which embrace a tract of ocean surface nearly 600 miles long by 200 broad, with a depth of water varying from 15 to 110 fathoms. The annual export of dried codfish from Newfoundland amounts to from 5 to 6 million dollars. The fish also furnishes other useful products, isinglass being obtained from the air bladder and cod liver oil from the liver, this oil being used largely for medicinal purposes.

On the 5c postage stamps of the issues of 1866 to 1894 of Newfoundland is pictured a Seal. The Seal is a marine animal, which has an elongated and somewhat pisciform body covered with a short, thick fur and terminated by a short conical tail. The limbs are flippers, adapted for swimming and are useless on land, the animal moving itself laboriously by wriggling and contraction of the muscles; the head somewhat resembles that of a dog and in most of the species the brain is large; the feet are short and webbed and five-toed, the fore-feet being placed like those of other quadrupeds, but the hind-feet are directed backwards, like a prolongation of the body, and between them is a short tail. The toes, particularly those of the hind-feet, are capable of being spread out very widely in swimming, so as to give great propulsive power. The movements of seals in the water are very rapid and graceful; on land they are very peculiar, even the fore-feet being little used or not at all, but the body is contracted by an upward bending of the spine and so thrown forward by a succession of jerks, in which way, however, a seal moves very rapidly.

The teeth differ considerably in the different genera, but in all are adapted for the seizure of slippery prey, the chief food of seals being fishes. The respiration of seals is extremely slow, about two minutes intervening between one breath and another when the animal is on land and in full activity; and they have been known to remain twenty-five minutes under water. Their slowness of respiration and power of suspending it for a considerable time is of great use in enabling them to pursue their prey under water. The fur of seals is very smooth and abundantly lubricated with an oily secretion. Another adaptation to aquatic life and cold climates appears in a layer of fat immediately under the skin which serves not only for protection from cold but for support when food is scarce.

On the ½c Newfoundland postage stamps of the issues of 1887-1890 is pictured the head of a Newfoundland dog. Few breeds of dogs are associated with so many accounts of canine instinct, devotion, and sagacity as the Newfoundland dog. The general appearance is that of a dog of great strength and activity for his build and size. The head is broad and massive, with a short and square muzzle, small ears and small deep set eyes. The back is broad, neck strong and short, legs very strong and the feet large and round. The chest is deep and broad and the tail thick and long enough to reach just below the hock. The movement is free and the loose swinging of the body between the legs, giving a slight roll to the gait, is characteristic. The average weight is about 120 pounds and height 26 inches. It is unrivalled as a water dog, and is much assisted by the oily nature of its dense, straight coat and by its partly webbed feet. Sir Edwin Landseer, the eminent English animal painter, immortalized the Newfoundland dog by his painting, "A Distinguished Member of the Humane Society."

On the 12c postage stamps of the 1897 issue is shown a group of Ptarmigans. They are compact-bodied, typically Grouse-like birds ranging from twelve to about seventeen inches in length, and may be known at once by having the tarsi, feet and toes completely and densely feathered. The tail is composed of sixteen feathers which are of nearly equal length. There are some fifteen species and subspecies recognized. Most of the species have three or even four more or less complete changes of plumage, that in winter being chiefly, or entirely pure white, while at other seasons it is varied with brown, buff, gray and black. These changes admirably adapt them to their surroundings and afford a means of protection from their enemies. A sub-species of the Willow Ptarmigan, known as Allen's Ptarmigan, is confined to Newfoundland and differs from the typical form in having the shafts of the secondaries black instead of white. The birds frequent rocky barrens, feeding on seed and berries of the stunted plants that thrive in these exposed situations.

NEW SOUTH WALES.

Is a state of the Commonwealth of Australia, in the southeastern part of the island continent. It is the oldest of the various states, with an area of 310,368 square miles and a coast line of over 700 miles. Within the colony of New South Wales the mountain range, which girdles nearly the whole island, is most continuous and elevated and is known as the

Dividing Range. The section of this mountain system on the southern boundary of the colony, called the Australian Alps, rises in Mt. Kosciusko to 6500 feet. The Dividing Range, which, opposite to Sydney, is called the Blue Mountains, being singularly abrupt and rugged and full of frightful chasms, long presented an impentrable barrier to the west and kept the colonists shut in between it and the sea and utterly ignorant of what lay beyond. In 1813, when the cattle were likely to perish in one of those droughts that occur in this country at intervals of a few years, three persons scaled the formidable barrier and discovered those downs on the western slope which now form the great sheep-ranges of Australia. A practicable road was immediately constructed by convict labor and the tide of occupation entered on a new and limitless expanse. New South Wales took its origin in a penal establishment formed by the British government in 1788 at Port Jackson, near Botany Bay. Transportation to New South Wales ceased in 1840, in 1843 a practically elective Legislative Council was established and 1855 responsible government was granted.

On the 2 pence postage stamps of New South Wales of the issues of 1888-89 is pictured an Emeu. With the exception of the ostriches, the Emeus are the largest of existing birds, a fully matured bird attaining a length of about 80 inches and standing over five feet high. They are exclusively confined to the deserts or plains of Australia. The Emeus are distinguished by a feathered neck and head, a broad bill and very strong legs and feet with three toes, the hind toe being absent, while the front toes are provided with claws. At a little distance the plumage has more the appearance of hair than fine feathers, while down the back there is a parting, whence the plumage falls gracefully over on either side. The general color is grayish brown, the feathers with black tips. The feathers of the head and back of the neck are black, short, hairy and recurved, and so thinly placed that the purplish blue color of the skin shows through. Their diet is strictly vegetarian and both their flesh and eggs are eaten by the natives.

On the 8 pence postage stamps of New South Wales of the 1888-1909 issues is pictured a Lyre bird. It is a large bird about two and a half feet long, with a rather long neck and large head, the bill being elongated, conical and sharp-pointed. The wings are rather short and rounded, with twenty-one quills, while the legs and feet are very strong. In the female and immature male the tail, although long, presents no very peculiar features, but in the adult male it has an extraordinary development and shape. It consists of sixteen feathers. the two outer feathers being first slightly curved outward, then inward and again outward abruptly near the tips, this producing a lyre-like form; and further each of these feathers has the outer web very narrow and the inner web very broad. The inner pair of feathers is nearly as peculiar, being without a web on the outside and with a very narrow one on the inside, while they cross each other near the base and bend forward near the tips. The remaining tail-feathers are beset with long flowing hair-like barbs about a fourth of an inch apart, these being without barbules. The birds are solitary in their habits, rarely more than a pair being seen together, and are constantly wandering through the brush. Being exceedingly shy at all times and under all conditions they are easily alarmed, when they run through the brush with great rapidity, carrying

the tail horizontally. The male is quite a singer, having a variety of calls and notes of his own, as well as being an expert imitator of the notes of other birds. The Lyre-birds inhabit the forests and bush districts of Australia and live in the thick undergrowth or sandy gullies of forests, and feed upon insects, worms and molluscs.

NEW ZEALAND

The Dominion of New Zealand consists of a group of islands in the Pacific Ocean, about 1,000 miles to the south-east of Australia. The three chief islands are: North Island with a length of 550 miles and a maximum breadth of 250 miles and an area of 44,468 square miles; South Island with an area of 58,525 square miles and Stewart Island with an area of 665 square miles. A mountain chain (the Southern Alps) traverses the west side of South Island, the range being crossed at intervals by low passes, and the highest peak is Mt. Cook, over 12,000 feet high. In North Island the volcanic region has a chain of hot lakes and springs which deposit silica. The celebrated "pink and white terraces" of Rotomahana, formed by the deposit of silica tinted with oxide of iron, were destroyed by the eruption of Mt. Tarawera in 1886, but are again in process of formation.

New Zealand was first discovered and peopled by the Maoris, who probably landed there from some of the Pacific Islands in the 15th century. Portions of the country were explored by Tasman in 1642 and Captain Cook landed on its shores in 1769. The first settlement of Europeans was made in 1814. New Zealand was made a dependency of New South Wales in 1839, but was separated from it in 1841 and a constitution given to it in 1852. In 1907 the designation of the colony was changed to the "Dominion of New Zealand."

On the Three Pence postage stamps of New Zealand of the 1898-1908 issues is shown a pair of Huia birds. Huia is the Maori name for a New Zealand bird, the only member of its genus. The most striking example of dimorphic bills is that of the Huia, the bill of the female being slender, about four inches long and much curved, while that of the male is nearly straight, stout and scarcely half that length. The favorite food of the birds is a grub of a timber boring beetle and the male bird with his short stout bill attacks the more decayed portions of the wood and chisels out his prey, while the female with her long slender bill probes the holes in the sounder part, the hardness of which resists his weapon; or when he, having removed the decayed portion, is unable to reach the grub, the female comes to his aid and accomplishes what he has failed to do. Except a white terminal band on the tail the whole plumage in both sexes is black, with a green metallic gloss; the bill is ivory white and the large rounded wattles at the gape are of a rich orange. The birds live entirely in the forests.

On the Six Pence postage stamps of the 1898-1908 issues of New Zealand is pictured a Kiwi (Apteryx), or so-called wingless bird of that country. The bird is slightly larger than a domestic fowl, with a rounded compact body, a rather short neck and small head, while the bill is very long, slender and slightly curved, with small slit-like nostrils near the tip. It has powerful legs which are covered with scales, and the four toes, three of which are directed forward and a very short

one backward, are provided with claws which are long, strong and acute. The plumage is fluffy and hair-like in appearance, each feather being pointed and composed of separate loose filaments. The wings are not quite absent, as the name implies, but are extremely small, consisting of a rudimentary humerus and one complete digit. There are, however, no definite wing quills and in fact the wings are entirely concealed by the plumage of the back; they are of course useless for flight and the birds are practically "wingless." The tail is also practically concealed, there being no tail feathers. In color the plumage is grayish brown. The birds are mainly nocturnal in their habits, remaining concealed in dark places during the day and coming out at dusk to feed on worms and insects, which they are adept at finding by probing in the moist ground and among mosses and roots. They also eat small grass seeds, berries and tender bits of succulent plants. They are rather stupid birds when disturbed during the day, but at night they become very active, jumping about and running with the greatest speed. They make good use of their extremely powerful legs, being always ready to kick at any object approaching them closely. They usually strike forward like an emu or ostrich.

On the One Shilling postage stamps of the issues of 1898-1908 is pictured a pair of parrots, known by their Maori name of Kakas and they are found only in the islands of New Zealand. The Kaka is arboreal in its habits, remaining quietly concealed until the cool hours, when it is an active and noisy bird with a harsh loud cry, by which it gets the name "Ka-ka." The birds vary in size, some being eighteen inches in length; the plumage is olive brown, yellow and red, the male and female being alike in coloration. Their food consists of insects, berries and sucking honey from flowers by means of their brush fringed tongues The birds live many years when in captivity and learn to be good talkers

NORTH BORNEO

The island of Borneo was discovered by the Portuguese in 1521, and is situated in the Eastern Archipelago. The territory of British North Borneo occupies the northern part of the island, with a total area of about 31,000 square miles and a coast line of over 900 miles. It is under the jurisdiction of the British North Borneo Company, being held under grants from the Sultans of Brunei and Sulu. The rights of the Company were confirmed by Royal Charter in 1882, and on May 12, 1888 the British Government proclaimed a protectorate over the State of North Borneo.

On the 2c postage stamps of the issues for 1893-1901 of North Borneo is shown the head of a Malay stag. A male deer is called a Stag, and is almost invariably garnished with antlers, which differ from horns in the composition, consisting of solid bone more or less branched and cast every year. The growth, loss and renewal of the antlers are one of the remarkable wonders of animal physiology. There is considerable variety of coloring in the coats of deer, different shades of brown predominating. Deer feed chiefly on the leaves of trees and shrubs, grass and fallen fruits and nuts. Their limbs are slender, strong and sinewy, usually fitted with lateral hoofs. They have a long neck, a small head which they carry high, large ears and large full eyes.

On the 3c postage stamps of the issue of 1893-1901 of North Borneo is shown a Sago Palm. The tree attains a height of from 40 to 60 feet, and within its ligneous bark it is filled with fibres and flour. It first blooms when 10 to 15 years old, according to the nature of the soil, flourishing best in a moist situation. After blooming, the flour transpires through the pores of the leaves, indicating that the tree is ripe. It must then be cut down within a year, or the flour will be lost. The stem is cut into lengths, split open and the pith dug out and placed in a vessel with a sieve bottom. Water is applied to separate the flour and carry it into a second vessel, where it is soon deposited. The water is then run off and the flour dried and put into little baskets made of sago leaves. The amount produced from a tree averages 750 pounds. A large quantity of sago-flour is sent from the north-west of Borneo to Singapore, where it is fitted for use as starch in the calico and other manufactures. In Borneo much of the Sago is granulated and forms a valuable article of food, being cheap, light, nutritious and easy of digestion.

On the 5c postage stamps of the issue of 1893-1904 of North Borneo is pictured an Argus Pheasant. The male bird is remarkable for its magnificent plumage, the tail consisting of twelve feathers, of which the two middle ones are very much elongated; the secondary feathers of the wings are much longer than the primary, being nearly a yard in length. The name Argus has allusion to the many beautiful markings which adorn the plumage of the male and particularly the secondaries of the wings, these taking the form of a series of eye-like spots partly white, yellow and rufous and surrounded by a black ring. When fully displayed the two wings are spread out to form one large fan. The female is of comparatively tame plumage, lacking the eye-like markings and the great length of secondaries and of the middle tail feathers.

The 12c postage stamps of the issues of 1893-1904 of North Borneo have for a central design a picture of a Crocodile, a genus of Saurian reptiles which may be described as lizard-like in form, with a great gape and with a long, powerful tail flattened at the sides, so as to become an organ of propulsion in the water. A vertical longitudinal crest is on the upper surface of the body, consisting of a series of horny lobes, double in the basal half of the tail and single beyond, and a protective armor of quadrangular horny shields of varying sizes which overlap at the edges. The teeth, which are conical and sometimes of very large size, are confined to the margin of the jaws, becoming hollowed at the base to admit the crowns of the new and larger teeth which are to succeed them as the crocodile increases in size. A remarkable feature of the existing form of crocodiles is the extremely backward position of the aperture of the internal nostrils, this being due to the development of special plates by the bones of the palate, which grow beneath the nasal passage and thus completely cut it off from the cavity of the mouth. As the summit of the windpipe is continued upwards into this posterior aperture of the nostrils, croco-

diles are able to breathe while their mouths are wide open and filled with water. Special valves at the back of the mouth prevent any water running down the throat. The upper and lower teeth of the crocodiles interlock and the fourth lower canine-like tooth is received into a notch in the side of the upper jaw and is visible when the mouth is closed. In the alligators this tusk-like tooth fits into a hole in the upper jaw and is invisible when the mouth is closed.

On the 4c postage stamps of the 1899-1901 issues of North Borneo is shown an Orang-utan, a large ape, the average height of which is about four feet. It has exceedingly long arms, short legs and a thick neck, the lower part of the face projecting remarkably, large canine teeth, small ears and the eyes close together. The hair is reddish brown and there is a slight beard. In traveling an unwooded tract, it places its knuckles upon the ground and swings its body through the arms as though they were crutches. The animal is arboreal and among the trees it is in its element, passing from branch to branch with great rapidity. In habit it is solitary and fruit, leaves, buds, and young shoots form its food. Borneo and Sumatra are its favorite habitation.

On the 10c postage stamps of the issues of 1902-1904 of North Borneo is pictured a Bruang, or Bornean Sun-Bear. The head of the Bruang is rather thick and the neck is powerful in comparison with the size of the head. The eyes are very small and the claws are extremely long. The color of its fur is a very deep black, with the exception of a large patch of orange hue on the breast. The lips and tongue are extremely flexible and are capable of being prolonged to an almost incredible extent. The great length of its tongue and the exceedingly flexible power of that organ are intended for the purpose of enabling the animal to obtain the honey from the nest of the wild bee. It is fond of fruits and various vegetables and is a dreaded foe to the cocoanut trees and their fruit, the animal being extremely fond of the liquid that is found in the nut and, being an excellent climber of the loftiest trees, it works havoc in a cocoanut grove.

On the 1c postage stamps of the 1909 issue of North Borneo is shown a Malayan Tapir. The Asiatic Tapir is restricted to a solitary species that is found in the Malay Peninsula, Sumatra and Borneo. It attains a height of three and a half feet and a length of eight feet from the tip of the snout to the scarcely perceptible tail. It is a most conspicuous animal, on account of the broad band of white that encircles its body. The ground color of the adult Malayan Tapir is a deep black, contrasting most strongly with the white of the back and flanks. The colors do not merge into each other, but the line of separation is marked.

On the 2c postage stamp of the 1909 issue of North Borneo is shown the Traveler's Tree or *Ravenala*. It is a curious palm-like tree, sending out leaves on two opposite sides, like a great expanded fan. The lower leaves drop off as the stem grows and in an old tree the lowest leaves are sometimes thirty feet from the ground. The stalk of each leaf is about six feet long and the blade four or six feet more. The blade of the leaf is oblong, bright green and shining; the fruit is not succulent but is filled with a silky fibre of purple color, amongst which are about forty seeds. The seeds are ground into flour and eaten by the natives of Borneo. The leaves are used for thatch and for many other purposes. The petioles, or leaf-stalks always contain water, even in the driest weather, more than a quart being readily obtained by piercing the thick part of the base of a leaf-stalk and this water is pure and pleasant. Hence the name Traveler's Tree.

On the 6c postage stamp of the issue of 1909 of North Borneo is pictured a Rhinoceros. Five species exist, three in Asia and two in Africa. The Rhinoceros with the exception of the elephant, is the largest and most powerful quadruped. The limbs are thick and strong, with three toes on each foot; the head is large, the muzzle prolonged and the nasal bones combined into an arch for the support of a horn, which, however, does not spring from them, but merely from the skin, and can be removed by passing a sharp knife round its base. This horn is a very remarkable organ and a powerful weapon of offence and defence. With it also the animal roots up bushes and small trees, the foliage or fruit of which it desires to eat. The horn is solid and of a perfectly homogeneous structure, and is of value for export to China where it is used for medicinal purposes. The Rhinoceros found in Borneo possesses two median horns, the first being long, sharp and recurved; the second, placed between the eyes, is very thick, short and pyramidal. The hide is very thick and is thinly covered with hair of a dark brown color.

On the 10c postage stamp of the 1909 issue of North Borneo is pictured a Wild Boar, (*Sus scrofa*) which is characterized by its long tusks, prominent pig-like snout and short, thick, woolly hair closely interspersed with bristles, which on the neck form a thick mane. The animal is about three feet in height and far surpasses the domestic swine in strength and swiftness. It is found in Europe, in North Africa and in parts of Asia. Wild Boars in early times proved very destructive to crops for they are voracious and omnivorous and feed chiefly at night. Great benefit was therefore derived by hunting them and their ferocity gave it the touch of danger necessary to make it good sport. In heraldry the boar's head is a well known cognizance.

On the 12c postage stamp of the 1909 issue of North Borneo is shown a Cockatoo, a genus of birds of the parrot-family, or *Psittacidae*, distinguished from parrots by the greater height of the bill and its being curved from the base, and by the lengthened broad and rounded tail. The head is also large and in the true cockatoos is surmounted by a crest of long and pointed feathers, which can be erected and expanded like a fan or depressed at the pleasure of the bird. The bill is short and much deeper than long, with the upper mandible gradually much compressed, the hook being nearly perpendicular and provided underneath with a file-like surface. The coloration of the plumage in the Cockatoos is different from that of the parrots, the prevailing color being white, but often finely tinged with red and orange or mixed with these colors in brilliant display. The characteristic parrot green is absent. The birds feed on fruit seeds and insect larvæ. The bird pictured on the stamp is not indigenous to North Borneo but is found in the Philippine Islands.

On the 16c postage stamp of the 1909 issue of North Borneo is shown a Rhinoceros Hornbill. These birds are of large size and inhabit the Malay Peninsula, Sumatra and Borneo. They are distinguished by a large, stout, curved bill and a large, wedge-shaped, elevated casque. The birds have a total length of forty-five inches and a wing of eighteen inches; the head, neck, back, wings and breast are black, glossed with steel blue on back and wings, the tail white with a subterminal band of black, the bill is yellow and the mandibles black, the casque black and red. Hornbills are arboreal in habits and feed largely on fruit. Owing to their bright colors, they are very conspicuous objects in the trees.

On the 18c postage stamp of the issue of 1909 of North Borneo is shown a Banteng (*Bos sondaicus*) a species of wild ox, found in the Malay Peninsula and Archipelago. It inhabits jungles and forests. The height of an adult male is five feet six inches at the shoulder, it has rounded horns and the back raised to a hump behind the neck. The female is bright dun in color, with lower half of the legs in white, and upon the hind quarter is always a bold patch of white. In spite of its dread of man, it is domesticated by the inhabitants of Borneo and is employed for many useful purposes.

On the 24c postage stamp of the 1909 issue of North Borneo is pictured a Cassowary (*Casuarius galeatus*. It is a large bird, standing about five feet high, and in general appearance is not unlike the ostrich, but with a much shorter neck. It has a laterally compressed bill with a large bony casque or helmet about three inches high reaching from the base of the bill to the middle of the crown of the head. The head and upper part of the neck are naked and of a bluish color and there are two pendent wattles, partly red and partly blue, on the front of the neck. The color of the Cassowary is brownish black; the feathers are loosely webbed and hang down so that, at a little distance, the bird seems clothed with hair.

NYASSA

Is one of the Provinces of Portuguese East Africa. The state lies between German East Africa on the north and Natal on the south and is bounded on the west by Lake Nyasa, British Nyasaland, Rhodesia and the Transvaal. Nyassa (*Port Amelia*) is leased to the Nyassa Company under a royal charter.

On the 2½ to 50 reis postage stamps of the 1901 issue of Nyassa is shown a Giraffe, the tallest of existing quadrupeds, which constitutes a distinct family of ruminants. It is a native of Africa and found generally in herds of from four to forty. The chief characteristic of the animal is the enormous length of the neck and limbs. The height of the Giraffe ranges from 16 to 19 feet. The tongue is remarkably capable of elongation or contraction and is an organ of touch and of prehension like the trunk of an elephant. It can be thrust far out of the mouth and employed to grasp and take up small objects. The usefulness of such an organ for drawing in leaves and branches to the mouth is obvious. The Giraffe adroitly picks off the leaves of acacias and other thorny plants, without taking the thorns into its month. The head ends in a narrow muzzle with a well-formed mouth. The upper lip is long and prehensible. The eyes, soft and gentle in expression, are large and prominent. The ears are large and pointed and the nostril slits can be closed at will. The head is furnished with two protuberances between the ears, generally described as horns. These are covered with skin and have on their summits a tuft of dark hair. On the forehead and nearly between the eyes is a third bony projection. The body is short and the back slopes from the shoulder to the tail, the elevation of the shoulder being due to the great elongation of the shoulder-blades. At first sight the fore-legs of the animal appear to be much longer than the hinder legs, but as a matter of fact the legs are all of equal length. The tail is long and terminates in a tuft of long hair, the neck having a very short mane. The hair is short and smooth, the color being reddish white, marked by numerous dark rusty spots. On the chest and knees are pads of thick, hard skin to protect the animal from abrasions when resting upon the ground.

On the 20 reis to 50 reis postage stamps of the 1911 issue of Nyassa is shown a Zebra, a name sometimes given to all the striped *Equidae*, all of which are natives of South Africa. In the whole group the characteristics more resemble those of the ass than of the horse; the tail is furnished with long hairs only towards the tip, the neck is full and arched and the mane stands erect. The Zebra stands about four feet high at the shoulder, is of light and graceful form, with slender limbs and narrow hoofs; the head is light, the ears long and open; the ground color is white or slightly tinged with yellow, the head, neck, body and legs striped with black—the neck and body transversely, but not regularly, the head with bands in various directions, the legs with irregular cross stripes. The Zebra lives in small herds and the senses of sight, smell and hearing in these animals are very acute. The least

alarm is sufficient to make a whole herd scamper away. When attacked and compelled to defend themselves, Zebras do it vigorously, the herd forming in a compact body with their heads towards the center and their heels towards the enemy, repelling even the lion by their kicks.

PERU

A maritime Republic of South America. It is bounded on the north by the republics of Ecuador and Colombia; on the east by Brazil and Bolivia; on the south by Chile and Bolivia. The capital, Lima, is situated on the mountain stream Rimac and has a magnificent cathedral founded by Pizarro in 1540. Peru has a gold standard of currency and no paper money. The unit is the *libra* of 10 *soles* or 100 *dineros* or 1000 *centavos* and its par value is $4.87.

On the postage stamps of the 1866-67 issues of Peru is shown a pair of Llamas. Of the genus Llama there are four species, two wild and two domesticated, and the name Llama is confined to the latter. They are smaller in size, lighter in build and without the hump of the Camels. They are all formed on much the same model, yet fitted for a different life. Instead of being natives of flat and sandy ground, the Llamas are inhabitants of the lofty mountains of Peru and Chile, the peculiar conformation of their feet enabling them to walk securely on slopes too rough and steep for other animals. The Llama is about three feet in height, has a long neck and carries its head elevated; the color is various but generally brown. The ancient Peruvians bred the Llama as a beast of burden and the animal can carry a load of a hundred pounds at the rate of twelve miles a day and travel for several days without water. The Spaniards, in their conquest and occupation of South America, made use of the Llama as a pack animal and in those days droves of from three hundred to a thousand, each laden with silver ingots from the Potosi mines, carried the metal to the coast. Only the male Llamas were used as beasts of burden, while the smaller females were kept for their milk and flesh.

ST. PIERRE AND MIQUELON.

A French colony consisting of several small islands off the south-east coast of Newfoundland. Area of St Pierre group, 10 square miles; area of Miquelon group, 83 square miles. The islands, being mostly barren rock, are unsuited for agriculture. The chief industry is cod-fishing. In 1912 there were 40 local vessels engaged in fishing on the Newfoundland banks. The French fleet numbered 240 vessels and had 6,838 men engaged in the work.

On the 25c to 75c postage stamps of the 1909 issue of St. Pierre and Miquelon is pictured a Gull, a genus of web-footed birds, inhabitants of the sea-coast of all parts of the world. The feet have three toes in front completely united by a web and a small hind toe not included in the web. The wings are long and pointed. Gulls have great power of wing and fly apparently with ease against a storm, during the continuance of which they generally fly low, whether over sea or land, but in fine weather soar higher in the air. They descend with great rapidity to seize prey from the surface of the water or at a small depth, the fishes which they

catch being those which swim near the surface. The gulls are very voracious, some of them even devouring molluscs, taking them up to a sufficient height in the air and dropping them on a rock in order to break their shells. This interesting fact is attested by Audubon, the American ornithologist, as having come under his own observation and he mentions an instance in which a gull, finding the shell not broken by the fall, carried it up a second and a third time and each time higher than the former.

TONGA.

The Tonga or Friendly Islands are situated in the Southern Pacific to the east-south-east of the Fiji Islands. The islands were discovered by Tasman in 1643 and visited by Cook in 1777, who, on account of the disposition of the natives, called them the Friendly Islands. They consist of over 150 islands, about 30 of which are inhabited. The great majority of the islands are of coral formation, but some are volcanic in their origin. Tongatabu is the largest and most southerly of these islands and the seat of government, the king being George Tubou II. Among the products of the islands are yams, bananas, cocoa-nuts, bread-fruit, etc., the total value of the exports being over a million dollars per year. The inhabitants have mostly been converted to Christianity. Population about 23,000. A British Protectorate was proclaimed over the Tonga Islands on May 19, 1900.

On the 1 penny postage stamp of the 1897 issue of Tonga is shown a Bread-Fruit Tree. The tree is a native of the islands of the Pacific Ocean and of the Indian Archipelago. It is one of the most important gifts of nature to the inhabitants of these regions, its fruit supplying part of their food and its inner bark part of their clothing. It is a beautiful tree as well as useful, the trunk rising to the height of about 40 feet and in a full grown tree being from 12 to 15 inches in diameter. The branches come out in a horizontal manner, the lower ones about ten feet from the ground and then shorter and shorter until near the top, giving the tree an appearance of perfect symmetry. The tree has large, pinnatifid leaves from 12 to 18 inches long, dark green and glossy. The fibrous inner bark of the young bread-fruit trees, beaten and prepared, is used for making a kind of cloth which is worn by the natives of the South Sea Islands. There exudes from the bark of the tree, when punctured, a thick mucilaginous fluid which hardens by exposure to the air and is used, when boiled with cocoa-nut oil, for making the seams of canoes water-tight. The timber is soft and light, of a rich yellow color and assumes, when exposed to air, the appearance of mahogany. It is used for canoes, house-building, furniture and many other purposes.

On the 4 pence postage stamp of the 1897 issue of Tonga is pictured a cluster of Bread-Fruit. The fruit is generally oval or nearly spherical. It is a sorosis, a compound or aggregate fruit formed from numerous flowers on a common axis and is covered with a roughish rind which is marked with small square or lozenge-shaped divisions, having each a small elevation in the center; it is at first green, then turns to brown and when fully ripe is of a rich yellow hue. It is attached to the small branches of the tree by a short thick

stalk and hangs either singly or in clusters of two or three together. It contains a somewhat fibrous pulp which, when ripe, becomes juicy and yellow but has then a bad taste. At an earlier stage when the fruit is gathered for use, the pulp is white and mealy and of a consistence resembling that of new bread. The common practice in the South Sea Islands is to cut the fruit into several pieces and take out the core; then to place heated stones in the bottom of a hole dug in the earth; to cover these with green leaves and upon this to place a layer of fruit, then stones, leaves and fruit alternately, when leaves and earth to the depth of several inches are spread over all. In a little over half an hour the bread fruit is ready, the outsides are nicely browned and the inner part presents a white or yellowish cellular pulpy substance, slightly resembling the inside of a wheaten loaf. It has little taste and more resembles the plantain than bread made of wheat-flour. It is slightly astringent and highly nutritious. Baked in this manner, bread-fruit will keep good for several weeks.

On the 6 pence postage stamps of the 1897 issue of Tonga is found a cluster of Coral, which is a calcareous secretion or deposit of many kinds of Zoöphytes of the class *Anthozoa*, which assumes various and often beautiful forms, according to the different laws which govern the gemmation of the polypes of the different species. One layer of the calcareous polype cells of which the greater number of corals are composed, occasionally surrounds another like the concentric circles in the wood of exogenous trees; one layer is sometimes deposited above another; the whole structure sometimes branches like a shrub, spreads like a fan or assumes the form of a cup, or a flower. Corals chiefly abound in the seas of the warmer latitudes where they form extensive banks and their various bright colors present the appearance of submarine flower-gardens. Numerous species are combined in the formation of a single Coral reef and occupy different places in it. Corals of the branching genus usually occupy the exposed edge of the reef and with them is associated a species which forms thick vertical plates, united at different angles by their edges, the outer plates only being tenanted by living polypes. In the stiller water within are many more delicate kinds, and in the quiet sheltered depths brainstone corals and flower-like forms appear. The Coral of commerce or Red Coral is chiefly obtained from the Mediterranean.

On the 2sh 6p postage stamp of the 1897 issue of Tonga is shown a Parrot. There is a vast number of species, natives of almost all tropical and subtropical regions. They are mostly birds of splendid plumage; they vary in size from the Great Macaw, more than three feet in length, tail included, to the little Love-birds, not larger than sparrows. They are mostly gregarious and are often seen in large flocks, generally inhabiting forests and making their nests in trees, feeding chiefly on fruits and seeds, partly also on leaves and buds. The voices of the Parrot tribes are generally harsh and discordant but many of the larger species have a remarkable power of imitating human speech and in domestication become capable of articulating not only words but sentences.

TURKS AND CAICOS ISLANDS.

A group of West India islands lying to the south of the Bahamas, from which Government they were separated in 1848. In 1874 they were annexed to Jamaica, from the north-east of which they are distant about 420 miles. The group consists of eight islands and several uninhabited rocks numbering about thirty in all. Grand Turk, the largest island, is about 30 miles long and is the seat of government. The chief industries are the exportation of salt, sponges and turtle-shell, the cultivation of sisal hemp and fishing. The total area of the islands is 223 square miles. Population between five and six thousand.

On the One Farthing postage stamps of the 1910-11 issues of Turks and Caicos islands is pictured a Cactus (*Melocactus communis*). The plant consists of a globose, somewhat conical, succulent fleshy stem, a foot or more in diameter and 1½ feet high, with 12 to 20 prominent ridges bearing at regular distances tufts of strong spines. The flowering portion of a cylindrical form, is produced on the top of the plant and is of a red color, like a fez-cap, because of which it is called "Turk's head" cactus.

URUGUAY

Is a republic in South America, situated between Brazil and Argentine, on the Atlantic coast. The surface consists of a level plain traversed in the south by low ranges of hills and bounded on the north by mountain ranges. Uruguay has a good climate and the vegetation is very rich. Wheat, oats, barley, maize, linseed and tobacco are cultivated. The wealth of the country is obtained from its pasturage which supports large herds of horned cattle and sheep. The original inhabitants were Indians who resisted all attempted invasions until the beginning of the 17th century. Later the country was held by the Spaniards, forming part of the vice-royalty of Buenos Ayres; afterwards it came under the rule of Portugal and was annexed to Brazil. When Brazil declared its independence, Portugal endeavored to retain Uruguay, but on the mediation of Great Britain, Uruguay was declared an independent state in 1828.

On the 1c postage stamp of the 1900 issue of Uruguay is pictured some cattle with the herder in the background. The cattle industry is followed in all the districts and live stock, hides, meats and wool are exported to Brazil, France, Great Britain and the United States. From Uruguay is obtained the meat extracts used at the Liebig factory. It is estimated there are over 9 million cattle and 27 million sheep in Uruguay. Lead, copper, manganese and a little gold and silver are mined.

On the 7c postage stamp of the 1901 issue of Uruguay is shown a collection of native fruit consisting of Pineapples, Grapes, Olives, etc. One of the industries of Uruguay is the cultivation of the grape. Wine is produced in several of the districts and it is said that over 4 million gallons are made annually.

KEDAH.

Is a state on the west coast of the Malay Peninsula, with a population of about 250,000. The capital, Alor Star, 8 miles inland on the Kedah River, is an important port and trading center. The principal crop of the country is rice, while cocoanut and rubber are cultivated.

On the 1 to 8c postage stamps of the 1912 issue of Kedah is pictured a Sheaf of Rice or "Paddy". Rice (*Orgza sativa*) is one of the most useful and extensively cultivated of all grains, furnishing the principal food of nearly one-third of the human race. Rice is cultivated in nearly all hot countries where capable of artificial irrigation . The cultivation of rice is most extensively carried on in India, China, Japan and Egypt, as well as Carolina, Georgia and other southern states of North America.

WESTERN AUSTRALIA.

Includes all the portion of the continent and adjacent islands west of the meridian 129° East Longitude. Its total area is about 975,920 square miles. The Colony was formed in 1829 and is now a State of the Commonwealth of Australia. Western Australia was formerly named Swan River Settlement, from the river Swan, which joins the Indian Ocean after watering a large district in the extreme southwest. There are large forests in the south-west portion of the State, consisting of all kinds of eucalyptus gums (jarrah, karri, tuart, wando, red gum), mangroves and mallet trees, the bark of which is used for tanning. The Sandal-wood (*Santalum cygnorum*) has long been an article of export. The Jarrah (*Eucalyptus marginata*), or Swan River mahogany, is very durable and as it resists the attacks of the white ant, the timber is used for railroad sleepers and piles for bridges. Gold, timber, wool, cattle, hides, pearl-shells and pearls (mainly from the oyster beds off Cossack) are among the chief exports. The production of gold from 1886 for 26 years amounted to about 520 million dollars.

On the 1 penny postage stamp of the 1854 issue of Western Australia is shown a Black Swan. No greater anomaly could at one time have been imagined than a *black* swan. For centuries it was considered to be an impossibility for so indissolubly was the attribute of whiteness connected among the ancients with the swans, that the idea of a black swan, as expressed in the well known line, *rara avis in terris, nigroque simillima cygno* was considered a mere flight of poetic imagination. The discovery of a Black Swan was made by a Dutch navigator more than 200 years ago, who captured the first specimen at the mouth of what is now known as the Swan River. A year after the capture accounts reached England through the burgomaster of Amsterdam and this was published by the Royal Society. Swans, of which there are few species, are all birds of large size with long flexible neck and a reddish bill, which is surmounted by a black knob at the base of the upper mandible and has a black nail at its tip. The common Swan is about five feet in entire length and weighs about thirty pounds. The birds make a hissing noise when offended and strike with their wings in attack or defense. Swans have been known to live over fifty years.

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15	Netherlands, Newfoundland, New South Wales, New Zealand	1.57
16	Nicaragua	2.72
17	Norway, Panama, Paraguay, Peru, Ponta Delgada, Portugal	1.93
18	Portugal, Portuguese India, Queensland, Reunion, Romania	1.38
19	Romania, Russia, St. Thomas, Salvador, San Marino	1.49
20	Senegal, Servia, Shanghai, South Australia, Spain	1.67
21	Spain, Straits Settlements, Sweden	1.25
22	Sweden, Switzerland,	1.36
23	Switzerland, Trinidad, Tunis, Turkey, Uruguay, Venezuela	1.74
	FOREIGN, 20th CENTURY	
50	Argentine, Austria, Belgium, Bulgaria, Canada	.81
51	Canada, Chile, China, Colombian Republic	1.57
52	Costa Rica, Dahomey, Denmark, Dutch Indies, Egypt, Germany, Great Britain, Greece,	.89
53	Hong Kong, Hungary, India, Italy, Jamaica, Japan	1.05
54	Japan, Macau, Mexico, Mozambique, New Caledonia, Newfoundland, Nicaragua	1.14
55	Nicaragua, Nyassa, Paraguay, Peru, Portugal, Reunion, Senegal, Sweden	1.39
56	Timor, Trinidad, Turkey, Uruguay, Venezula, Victoria, Zambesi	.77

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